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	Frame #			Y by U.S. Gove mental File		
Attorney Docket No	o: 073305.P074					
Conveying Part	y (ies)	☐ Mark if additi	onal names of conv	eying parties at	ttached	Excecution Date  Month Day Year
Name (1st party) C	raig Edward Hampel					11.30.1999
T	Oonald Victor Perino					11.30.1999
Name (3rd party)						
Name (4th party)						
<b>D</b>		Mark if additi	onal names of recei	ving parties att	ached	
Receiving Party						If document to be recorded is
Name (line 1) Rambus Inc an assignment and the receiving party is not						
Name (line 2) a Corporation of Delaware domiciled in the United States, an appointment of a						
Address (line 1) 2	2465 Latham Street					domestic representative is attached. (Designation must
Address (line 2)						be a separate document from
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FORM PTO-1619B
OMB 0651-0027



### Page 2



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**PATENT** 

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Name Lester J. Vincent		
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Address (line 2) 12400 Wilshire Boulevard, Seventh	Floor	
Address (line 3)		
Address (line 4) Los Angeles, CA 90025-1026		
Pages Enter the total number of pages o	f the attached conveyance document.	# 2
Application Number (s) or Patent Number	the Patent Number (DO NOT ENTER BOTH n	Mark if additional numbers attached
Enter either the Patent Application Number of  Patent Application Number (s)		Number (s)
09/394,984		
He He		
Hithis document is being filed together with a new Pa	atent Application, enter the date the	Month Day Year
patent application was signed by the first named exec	uting inventor.	
Patent Cooperation Treaty (PCT)	PCT PCT	PCT
Enter PCT application number only if a U.S. Application Number has not been assigned.		PCT
Number of Properties Ente	er the total number of properties involved.	# 1
Fee Amount Fee An	nount for Properties Listed (37 CFR 3.41):	\$ 40.00
Method of Payment: Deposit Account  Enclo	sed Deposit Account	
(Enter for payment by deposit account	unt or if additional fees can be charged to the acc	
	Deposit Account Number:	# 02-2666
	Authorization to charge additional fees:	Yes 🛛 No 🗌
Statement and Signature		
To the best of my knowledge and belie attached copy is a true copy of the original indicated herein.	ef, the foregoing information is true and ginal document. Charges to deposit ac	d correct and any count are authorized, as
Lester J. Vincent 31,460	Jate V +	December 6, 1999
Name of Person Signing Registration	No. Signature	Date

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No.073305.P074)

In the Application of:

Perino et al.

Serial No: 09/394,984

**Filed:** 9/13/99

Title: Method and Apparatus to

Reduce Calculated Worst Case )

Bus Power

Group
Art Unit: 2818

I hereby certify that this correspondence is being deposited with the United States Postal 1 Service as first class mail with sufficient postage in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231 on

(Name of Person Mailing Correspondence)

Signature Date

Assistant Commissioner for Patents Washington, DC 20231

# POWER OF ATTORNEY BY ASSIGNEE, REVOCATION OF ALL PRIOR POWERS OF ATTORNEY AND CERTIFICATE UNDER 37 CFR 3.73(b)

Sir:

The undersigned, being empowered to sign this Power of Attorney, Revocation of All Previous Powers of Attorney and Certificate under 37 CFR 3.73(b) on behalf of Rambus Inc., the assignee of the entire right, title and interest in the above-referenced application, hereby revokes all prior powers of attorney and hereby appoints Lewis C. Lee, Reg. No. 34,656; Daniel L. Hayes, Reg. No. 34,618; Steven R. Sponseller, Reg. No. 39,384; Lance R. Sadler, Reg. No. 38,605; Thomas A. Jolly, Reg. No 39,241; Neil A. Steinberg, Reg. No. 34,735; Paul M. Anderson Reg. No. 39,896; and Paula J. Lagattuta, Reg. No. 40,691, jointly and severally, with full power of substitution and revocation to prosecute this application and to transact all business before the United States Patent and Trademark Office in the above-referenced application.

Rambus Inc. certifies that it is the assignee of the entire right, title and interest in the above-referenced patent

application by virtue of an assignment from the inventors, Donald Victor Perino and Craig E. Hampel. The assignment was recorded on 12/9/99 in the U.S. Patent and Trademark Office at Reel 10435, Frame 0886.

The undersigned has had all of the documents in the chain of title of the above-referenced application reviewed and, to the best of the undersigned's knowledge and belief, title is in Rambus Inc., the assignee identified above.

Please direct all correspondence in the above-referenced patent application to:

Daniel L. Hayes, Esq. Lee & Hayes, P.L.L. C. 421 W. Riverside Ave., Suite 500 Spokane, Washington 99201 Phone: 509-324-9256

Fax: 509-323-8979

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so make are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon.

Date: 6-26-01

Neil A. Steinberg, Esq.

Vice President

Intellectual Property

Rambus Inc.

Attorney's Docket No.: 073305.P074

<u>Patent</u>

#### DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD AND APPARATUS FOR REDUCING WORST CASE POWER

the specification	n of which	
<u>x</u>	is attached hereto. was filed on United States Application Number	as
	or PCT International Application Numberand was amended on	
	(if applical	ole)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

"Express Mail" mailing label number: EL 371007305US Date of Deposit: September 13, 1999
I hereby certify that I am causing this paper or fee to be deposited with the United States Postal Service "Express Mail Post
Office to Addressee" service on the date indicated above and that this paper or fee has been addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231
(Typed or printed name of person mailing paper or fee)
(Signature of person mailing paper or fee) 9 13 99 (Date signed)

Prior Foreign Application(s)			Priority <u>Claimed</u>
(Number)	(Country)	(Day/Month/Year Filed)	Yes No
(Number)	(Country)	(Day/Month/Year Filed)	Yes No
(Number)	(Country)	(Day/Month/Year Filed)	Yes No
I hereby claim the benefit uprovisional application(s) list	inder title 35, United States sted below:	Code, Section 119(e) of any	United States
(Application Number)	Filing Date		
(Application Number)	Filing Date	<del></del>	
known to me to be materia	I to patentability as defined e available between the fili	wledge the duty to disclose all I in Title 37, Code of Federal I ng date of the prior application	Regulations,
(Application Number)	Filing Date		abandoned)
(Application Number)	Filing Date	(Status patented, pending, abandone	
nart of this document) as r	ny respective patent attorr n, to prosecute this applica	ereto (which is incorporated by leys and patent agents, with for tion and to transact all busine	Jii power of
Send correspondence to	Lester J. Vincent	, BLAKELY, SOKOI	OFF, TAYLOR &
telephone calls to Les	(Name of Attorney or A shire Boulevard 7th Floo ster J. Vincent me of Attorney or Agent	r, Los Angeles, California 9 , (408) 720-8598.	0025 and direct

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/Fig	rst Inventor Craig Edwa	ard Hampel		
Inventor's Signature	(non Edward	Hoyal	Date	Sept, 1999
Residence San Jose	e. California	Citizens	ship U.S.A.	
	(City, State)			(Country)
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Post Office Address	5927 Dunn Avenue			
	San Jose, California 9	5123	<del></del>	
Full Name of Second	VJoint Inventor Donald	Victor Perino		
	A 111-	$\mathcal{Q}$ –	- 10	1116 1990
Inventor's Signature	Soull Vita	1emm	Date	7117
Residence Los Altr	os, California	Citizen	shin U.S.A.	
riesiderice <u>Los Ait</u>	(City, State)		5111P <u>51511</u>	(Country)
				•
Post Office Address	1690 William Henry Co			
	Los Altos, California 9	4024		
Full Name of Third/J	oint Inventor			
			5 .	
Inventor's Signature		<del></del>	_ Date	· · · · · · · · · · · · · · · · · · ·
Residence		Citizen:	shin	
nesiderice	(City, State)			(Country)
	(2.0), 2.2.2.7			
Post Office Address				
Full Name of Fourth/	Joint Inventor			
Inventor's Signature	<del></del>		_ Date	
Residence		Citizen	shin	
1 1631061106	(City, State)			(Country)
	(,,)			•
Post Office Address				

Full Name of Fifth/Joint Inventor	
nventor's Signature	Date
Residence(City, State)	Citizenship(Country)
Post Office Address	
Full Name of Sixth/Joint Inventor	
Inventor's Signature	Date
Residence(City, State)	Citizenship(Country)
Post Office Address	
Full Name of Seventh/Joint Inventor	
Inventor's Signature	Date
Residence(City, State)	Citizenship(Country)
Post Office Address	

#### **APPENDIX A**

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. P42,261; Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Ronald C. Card, Reg. No. P44,587; Yong S. Choi, Reg. No. P43,324; Thomas M. Coester, Reg. No. 39,637; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Robert Andrew Diehl, Reg. No. 40,992; Tarek N. Fahmi, Reg. No. 41,402; James Y. Go, Reg. No. 40,621; Dinu Gruia, Reg. No. P42,996; Willmore F. Holbrow III, Reg. No. P41,845; George W Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; William W. Kidd, Reg. No. 31,772; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, under 37 C.F.R. § 10.9(b); Paul A. Mendonsa, Reg. No. 42,879; Darren J. Milliken, Reg. 42,004; Lisa A. Norris, Reg. No. P44,976; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Dennis A. Nicholls, Reg. No. 42,036; Kimberley G. Nobles, Reg. No. 38,255; Daniel E. Ovanezian, Reg. No. 41,236; Babak Redjaian, Reg. No. 42,096; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Anand Sethuraman, Reg. No. P43,351; Charles E. Shemwell, Reg. No. 40,171; Jeffrey Sam Smith, Reg. No. 39,377; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Vincent P. Tassinari, Reg. No. 42,179; Edwin H. Taylor, Reg. No. 25,129; George G. C. Tseng. Reg. No. 41,355; Joseph A. Twarowski, Reg. No. 42,191; Lester J. Vincent, Reg. No. 31,460; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Stephen Warhola, Reg. No. 43,237; Charles T. J. Weigell, Reg. No. 43,398; Kirk D. Williams, Reg. No. 42,229; James M. Wu, Reg. No. P45,241; Steven D. Yates, Reg. No. 42,242; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and James A. Henry, Reg. No. 41,064; my patent agent, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and James R. Thein, Reg. No. 31,710, my patent attorney.

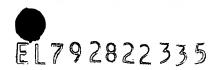
#### APPENDIX B

## Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclosure information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclosure all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
  - (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made or record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
  - (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
  - (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



Attorney's Docke	et	ASSIG	<u>NMENT</u>	<u>PATENT</u>	
No.: 073305	5.P074		After Filing Patent Applica		
In consid	In consideration of good and valuable consideration, the receipt of which is hereby				
acknowledged,	We	·			
the undersigned	Craig Edwa	ard Hampel and	Donald Victor Perino		
	<del>-</del>				
hereby sell, assi	gn, and tran	sfer to <u>Rambus</u>	s Inc.		
a corporation of	- 1	Delaware	, having a principal p	place of business at	
2465 Latham Street, Mountain View, CA 94040 , ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed September 13,1999 and assigned Application No. 09/394,984 and is entitled					
METHOD AN	<u>ID APPARA</u>	TUS FOR REDU	JCING WORST CASE PO	OWER	
continued prose	cution applications, reissue	cations, continua e applications, re or shall be filed	nal applications, continuat ation-in-part applications, eexaminations, extension in the United States and a original patents, reissued	substitute applications, s, and all other patent all foreign countries on	

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

certificates, and extensions that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the

filing of said United States application;

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date: November 30  Date: November 30	, 19 <u>9</u> 9	Name: Craig E. Hampel		
Date: November 30	, 19 <u>9</u> 9	Porul V. Permo  Name: Donald V. Perino		
Date:	, 19	Name:		
Date:	, 19	Name:		
Date:	, 19	Name:		
Date:	, 19	Name:		
State of: California } SS. Assignment Document Return Address:  BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 12400 Wilshire Blvd., Seventh Floor Los Angeles, California 90025-1026 (408) 720-8598				
On this 30 th day of November the undersigned Notary Public, person	-19 <u>99</u> , be	efore me, <u>Michileo Sites</u> , ared <u>Donakl V. Perino</u>		
[X] personally known to me [_] proved whose name(s)_subscribed to the with WITNESS my hand and official seal.  **Michigan**  Notary's Signature**	d to me or nin instrum	n the basis of satisfactory evidence to be the person(s) nent, and acknowledged that //e_executed it.  MICHIKO SITES Commission # 1236983 Notary Public - California Santa Clara County My Comm. Expires Oct 8, 2003		
State of: <u>California</u> } County of: <u>Santa Clara</u> }	SS.			
On this 30 to day of November 1999, before me, Michiko Sites, the undersigned Notary Public, personally appeared Craig E. Hampel				
[X] personally known to me [_] proved to me on the basis of satisfactory evidence to be the person(s) whose name(s)_subscribed to the within instrument, and acknowledged that he_executed it.  WITNESS my hand and official seal.				
Notary's Signature		MICHIKO SITES Commission # 1236983 Notary Public - California \$ Santa Clara County My Comm. Expires Oct 8, 2003		